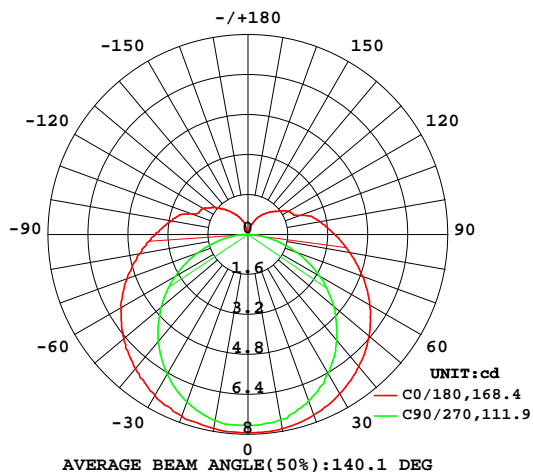


LUMINAIRE PHOTOMETRIC TEST REPORT

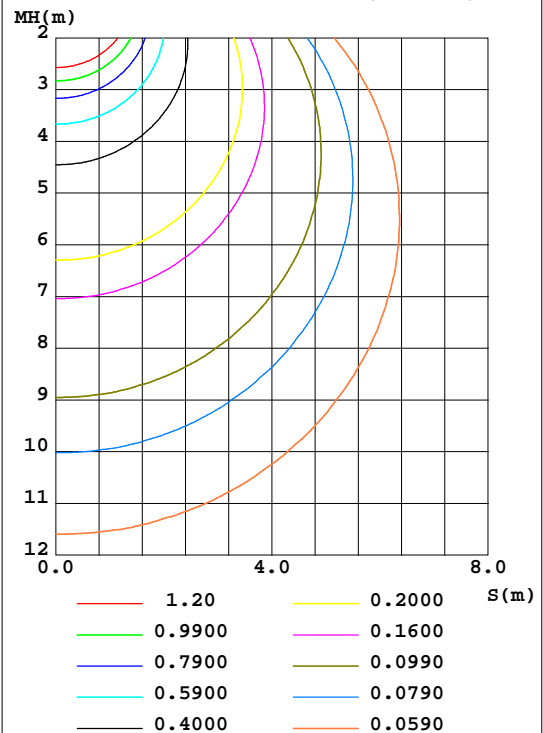
Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 4.21 lm/W
MODEL	NNS1224	I _{max} (cd)	7.931	S/MH(C0/180)	1.41	
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	1.26	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	35.324	h UP,DN(C0-180)	8.6,40.5	
NOMINAL FLUX(lm)	35.3238	CIE CLASS	SEMI-D.	h UP,DN(C180-360)	9.3,41.6	
LAMPS INSIDE	1	h up(%)	17.9	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	24	h down(%)	82.1	CIBSE SHR MAX	1.50	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

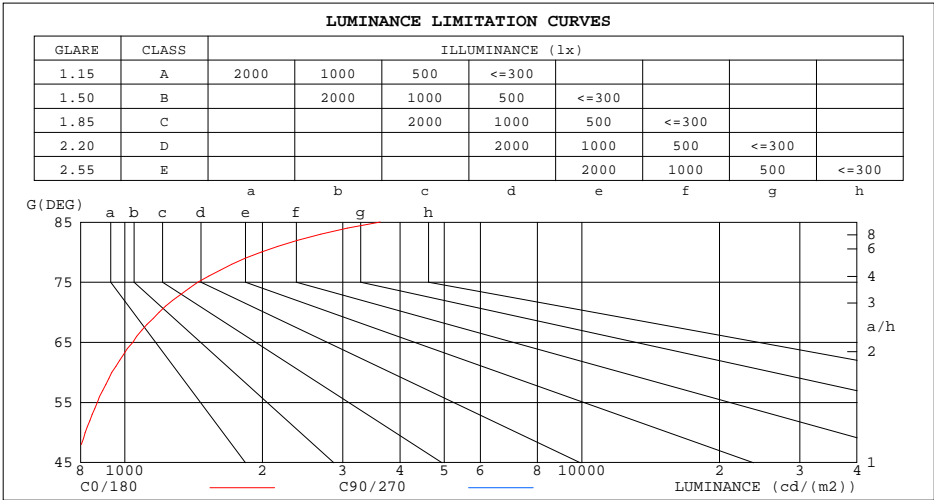
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	7.881	7.519	7.886	7.552					0- 10	0.7405	0.7405	2.1,2.1
20	7.688	7.087	7.737	7.140					10- 20	2.146	2.886	8.17,8.17
30	7.346	6.425	7.447	6.460					20- 30	3.319	6.205	17.6,17.6
40	6.902	5.517	7.004	5.582					30- 40	4.137	10.34	29.3,29.3
50	6.317	4.490	6.489	4.540					40- 50	4.534	14.88	42.1,42.1
60	5.622	3.293	5.852	3.381					50- 60	4.484	19.36	54.8,54.8
70	4.876	2.034	5.143	2.120					60- 70	4.019	23.38	66.2,66.2
80	4.141	0.8481	4.388	0.9469					70- 80	3.228	26.61	75.3,75.3
90	3.477	0.0964	3.702	0.2066					80- 90	2.391	29.00	82.1,82.1
100	2.936	0.0259	3.147	0.0129					90-100	1.838	30.84	87.3,87.3
110	2.279	0.0386	2.435	0.0129					100-110	1.473	32.31	91.5,91.5
120	1.880	0.0517	2.085	0.0129					110-120	1.053	33.36	94.5,94.5
130	1.455	0.0644	1.647	0.0129					120-130	0.8130	34.18	96.8,96.8
140	1.115	0.0774	1.229	0.0644					130-140	0.5522	34.73	98.3,98.3
150	0.7860	0.1094	0.9181	0.0966					140-150	0.3470	35.08	99.3,99.3
160	0.4378	0.1118	0.5840	0.1075					150-160	0.1788	35.25	99.8,99.8
170	0.1288	0.1142	0.1544	0.1049					160-170	0.0576	35.31	100,100
180	0.1159	0.1159	0.1094	0.1030					170-180	0.0113	35.32	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	3621	363
80	1987	407
75	1445	451
70	1188	496
65	1041	528
60	937	549
55	871	566
50	819	582
45	781	590

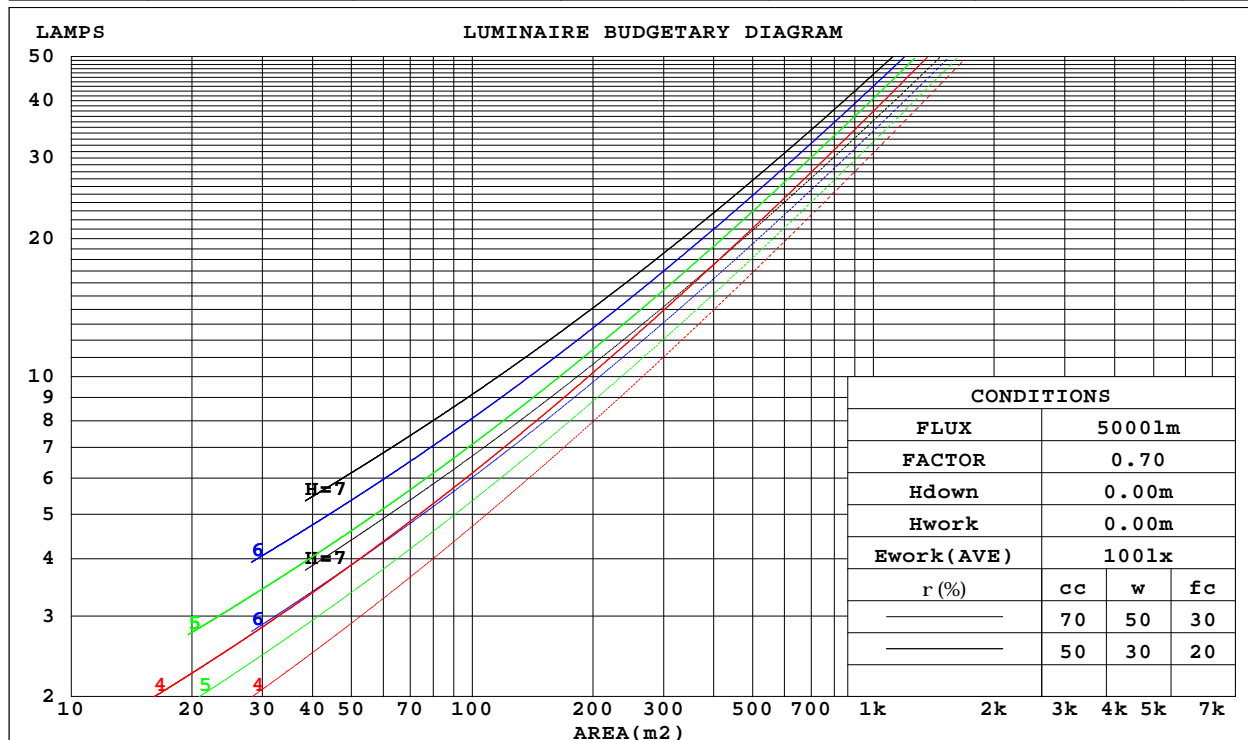
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.15	1.15	1.15	1.10	1.10	1.10	1.01	1.01	1.01	.93	.93	.93	.86	.86	.86	.82
1.0	.96	.91	.86	.92	.87	.83	.84	.81	.77	.77	.74	.72	.71	.69	.66	.63
2.0	.82	.75	.68	.79	.72	.66	.72	.67	.62	.66	.62	.58	.61	.57	.54	.50
3.0	.71	.63	.55	.68	.60	.54	.63	.56	.50	.58	.52	.47	.53	.48	.44	.41
4.0	.63	.53	.46	.60	.52	.45	.55	.48	.42	.51	.45	.40	.47	.42	.37	.35
5.0	.56	.46	.39	.53	.45	.38	.49	.42	.36	.45	.39	.34	.42	.36	.32	.29
6.0	.50	.41	.34	.48	.39	.33	.44	.37	.31	.41	.34	.30	.38	.32	.28	.25
7.0	.45	.36	.30	.43	.35	.29	.40	.33	.27	.37	.31	.26	.34	.29	.25	.22
8.0	.41	.32	.26	.39	.31	.26	.37	.29	.24	.34	.28	.23	.31	.26	.22	.20
9.0	.37	.29	.23	.36	.28	.23	.34	.27	.22	.31	.25	.21	.29	.24	.20	.18
10.0	.34	.26	.21	.33	.26	.21	.31	.24	.20	.29	.23	.19	.27	.22	.18	.16



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-07-01

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.750m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0														
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
rfc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.376	.214	.068	.364	.207	.066	.340	.195	.062	.318	.183	.059	.298	.173	.056															
2.0	.328	.180	.055	.317	.175	.054	.295	.164	.051	.276	.155	.048	.257	.146	.046															
3.0	.293	.156	.047	.283	.151	.046	.263	.143	.043	.245	.134	.041	.229	.127	.039															
4.0	.264	.137	.040	.255	.133	.039	.237	.126	.038	.221	.119	.036	.206	.112	.034															
5.0	.241	.123	.036	.232	.119	.035	.216	.113	.033	.201	.106	.032	.188	.100	.030															
6.0	.221	.111	.032	.213	.108	.031	.199	.102	.030	.185	.096	.028	.172	.091	.027															
7.0	.204	.101	.029	.197	.098	.028	.183	.093	.027	.171	.088	.026	.159	.083	.024															
8.0	.189	.092	.026	.183	.090	.025	.171	.085	.024	.159	.081	.023	.148	.076	.022															
9.0	.176	.085	.024	.170	.083	.023	.159	.079	.022	.149	.074	.021	.139	.070	.020															
10.0	.165	.079	.022	.160	.077	.022	.149	.073	.021	.139	.069	.020	.130	.065	.019															

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Ceiling Cavity Exitance Coefficients(CCEC)												
0.0	.327	.327	.327	.279	.279	.279	.191	.191	.191	.110	.110	.110	.035	.035	.035	
1.0	.322	.293	.267	.276	.252	.229	.189	.173	.159	.109	.100	.092	.035	.032	.030	
2.0	.316	.270	.232	.270	.233	.201	.185	.161	.140	.107	.094	.082	.034	.030	.027	
3.0	.308	.254	.210	.264	.219	.182	.181	.152	.128	.105	.089	.075	.034	.029	.025	
4.0	.300	.241	.196	.258	.208	.170	.177	.145	.120	.103	.085	.071	.033	.028	.023	
5.0	.293	.231	.186	.251	.200	.162	.173	.140	.114	.100	.082	.068	.032	.027	.022	
6.0	.285	.223	.179	.245	.193	.156	.169	.135	.110	.098	.080	.065	.032	.026	.022	
7.0	.278	.217	.174	.239	.188	.151	.165	.132	.107	.096	.078	.064	.031	.025	.021	
8.0	.272	.211	.170	.234	.183	.148	.162	.129	.105	.094	.076	.063	.030	.025	.021	
9.0	.265	.206	.166	.229	.179	.145	.158	.126	.103	.092	.074	.061	.030	.024	.020	
10.0	.260	.202	.164	.224	.176	.143	.155	.124	.102	.091	.073	.061	.029	.024	.020	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm											
NAME: NNS1224					TYPE:			WEIGHT:			
SPEC.:NNS1224-0Y24CSS050CC0100					DIM.: 1000*12*24mm			SERIAL No.:			
MFR.: Colors					SUR.:1000*12			Shielding Angle:			
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions	Viewed crosswise					Viewed endwise					
x = 2H y = 2H	23.1	24.5	23.6	25.0	25.6	21.2	22.6	21.7	23.1	23.7	
	3H	25.7	27.0	26.3	27.5	28.1	22.8	24.0	23.3	24.6	25.2
	4H	27.2	28.4	27.7	28.9	29.6	23.4	24.6	23.9	25.1	25.7
	6H	28.8	29.9	29.4	30.5	31.2	23.8	24.9	24.4	25.5	26.2
	8H	29.7	30.8	30.3	31.4	32.0	24.0	25.0	24.5	25.6	26.3
	12H	30.8	31.8	31.4	32.4	33.1	24.0	25.1	24.6	25.7	26.4
4H	2H	23.6	24.8	24.2	25.4	26.0	22.3	23.5	22.8	24.0	24.6
	3H	26.4	27.5	27.0	28.1	28.8	24.0	25.1	24.6	25.7	26.4
	4H	28.1	29.0	28.7	29.6	30.3	24.8	25.8	25.5	26.4	27.1
	6H	29.9	30.7	30.5	31.4	32.1	25.5	26.3	26.1	27.0	27.7
	8H	30.9	31.7	31.6	32.4	33.1	25.7	26.5	26.4	27.2	27.9
	12H	32.1	32.9	32.8	33.5	34.3	25.9	26.6	26.5	27.3	28.1
8H	4H	28.3	29.1	29.0	29.8	30.5	25.7	26.5	26.4	27.2	27.9
	6H	30.4	31.1	31.1	31.8	32.6	26.7	27.3	27.4	28.0	28.8
	8H	31.6	32.2	32.3	32.9	33.7	27.1	27.7	27.8	28.4	29.2
	12H	33.1	33.6	33.8	34.3	35.2	27.5	28.0	28.2	28.7	29.5
12H	4H	28.3	29.1	29.0	29.7	30.5	26.0	26.7	26.6	27.4	28.1
	6H	30.5	31.1	31.2	31.8	32.6	27.1	27.7	27.8	28.4	29.2
	8H	31.8	32.3	32.5	33.0	33.9	27.7	28.2	28.4	29.0	29.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5					

CIE Pub.117, 35.32 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -11.6)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

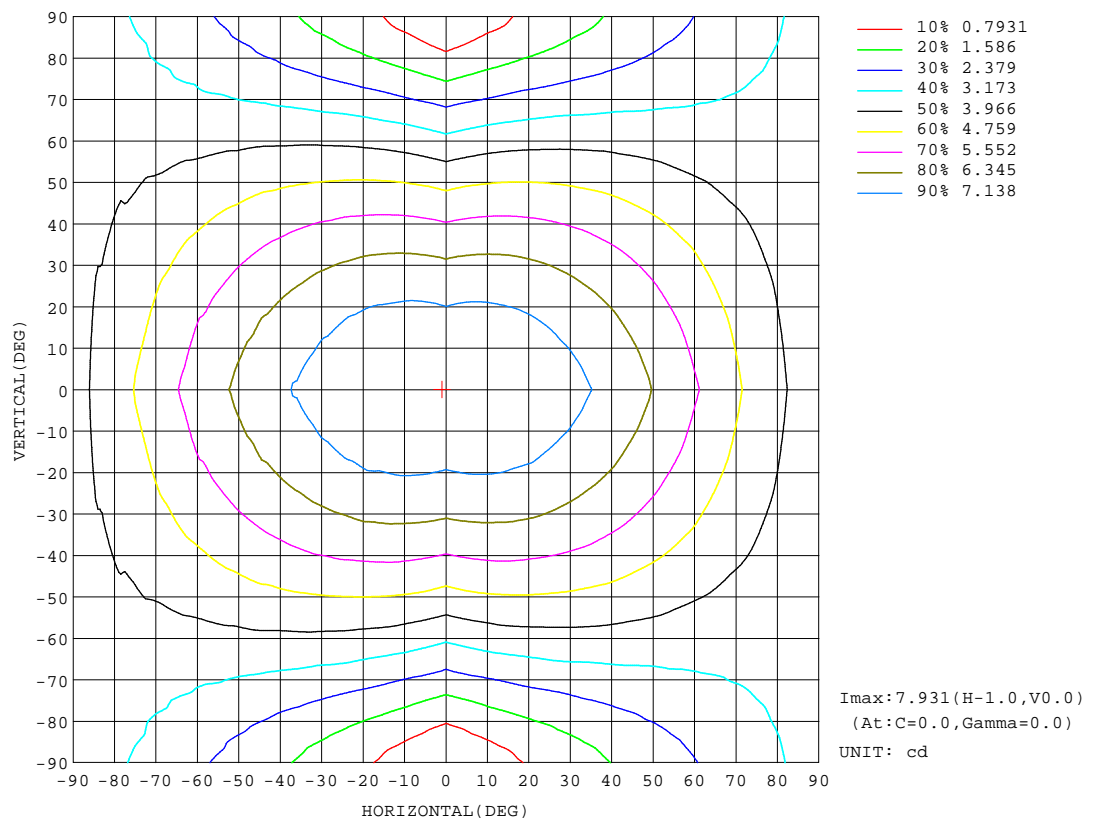
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	48	36	29	47	35	28	45	34	28	21
0.80	57	44	36	56	44	36	53	42	35	27
1.00	65	52	44	63	51	43	60	52	42	34
1.25	72	60	51	70	58	50	65	56	49	39
1.50	77	65	57	75	64	56	70	60	54	43
2.00	84	74	65	81	71	64	76	68	61	50
2.50	89	79	71	86	77	69	79	72	66	53
3.00	93	84	76	89	81	74	82	76	70	57
4.00	97	90	83	93	87	81	86	81	76	62
5.00	100	94	88	96	90	85	89	84	80	65
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

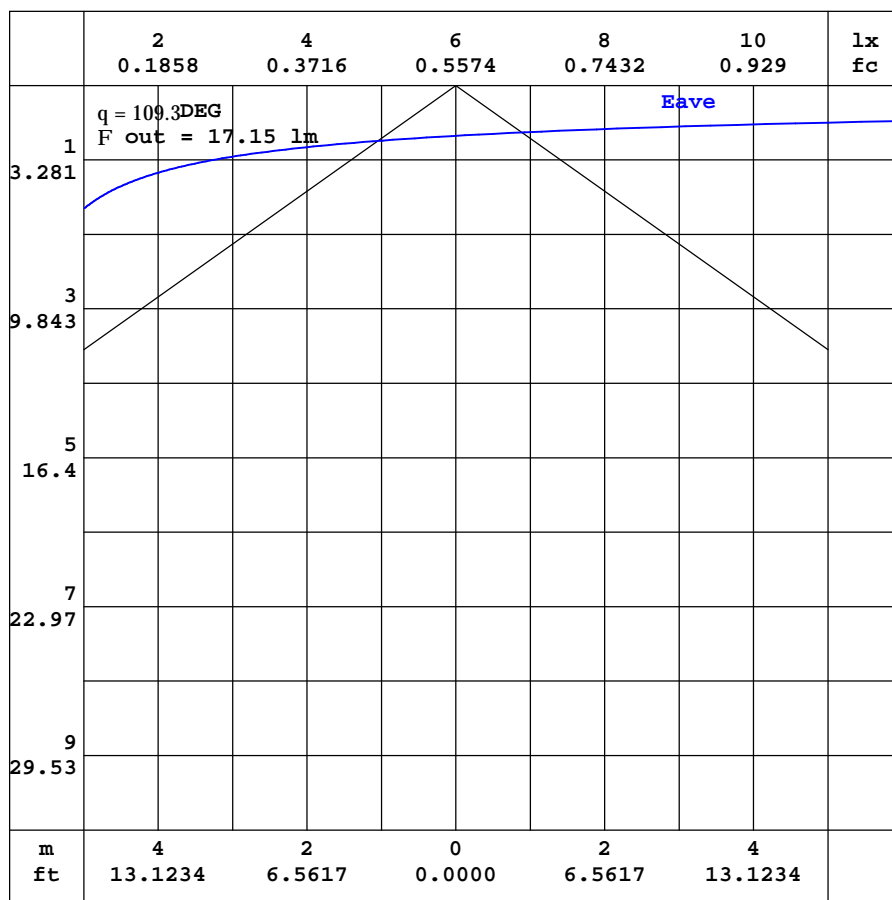


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2019-07-01

Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.750m [K=1.0000]
Remarks:

AAI CURVES

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



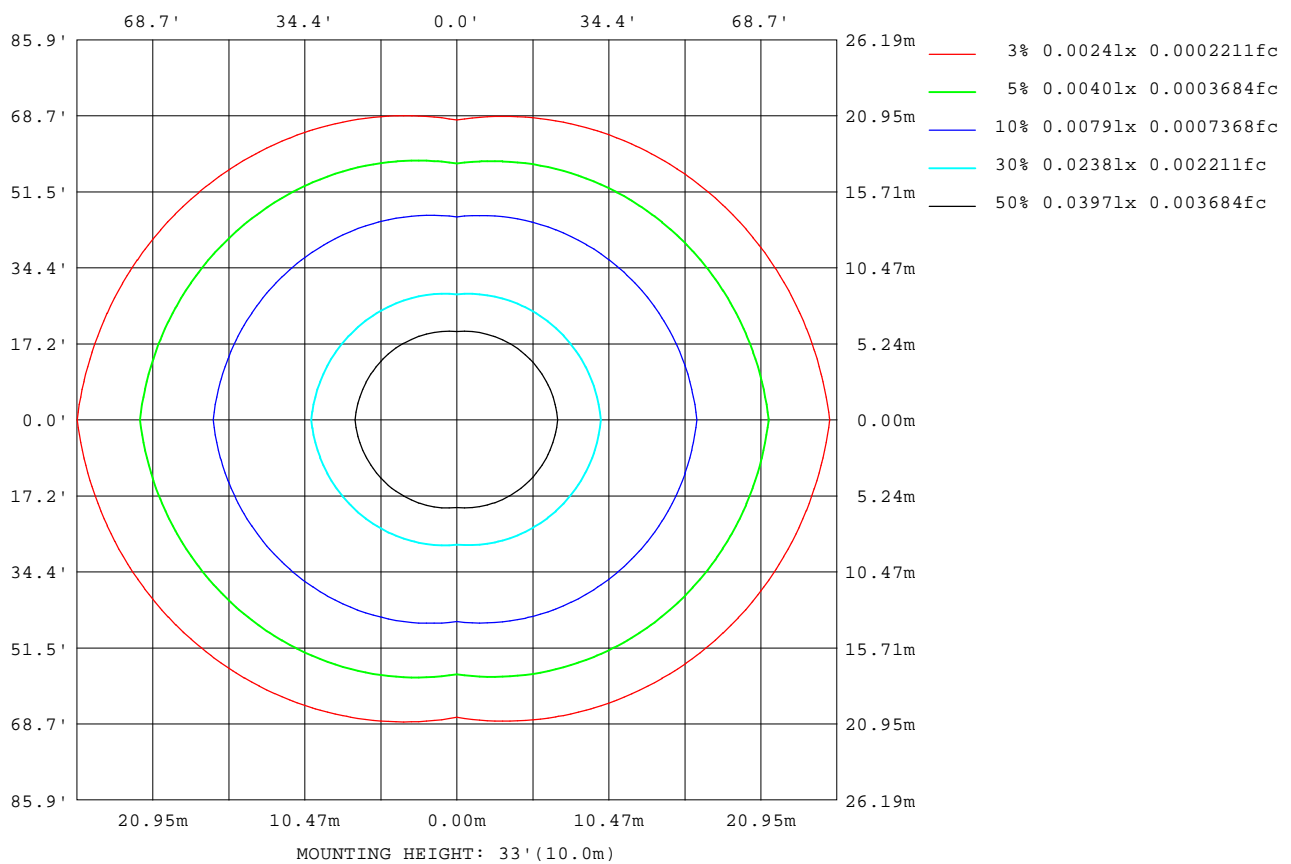
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

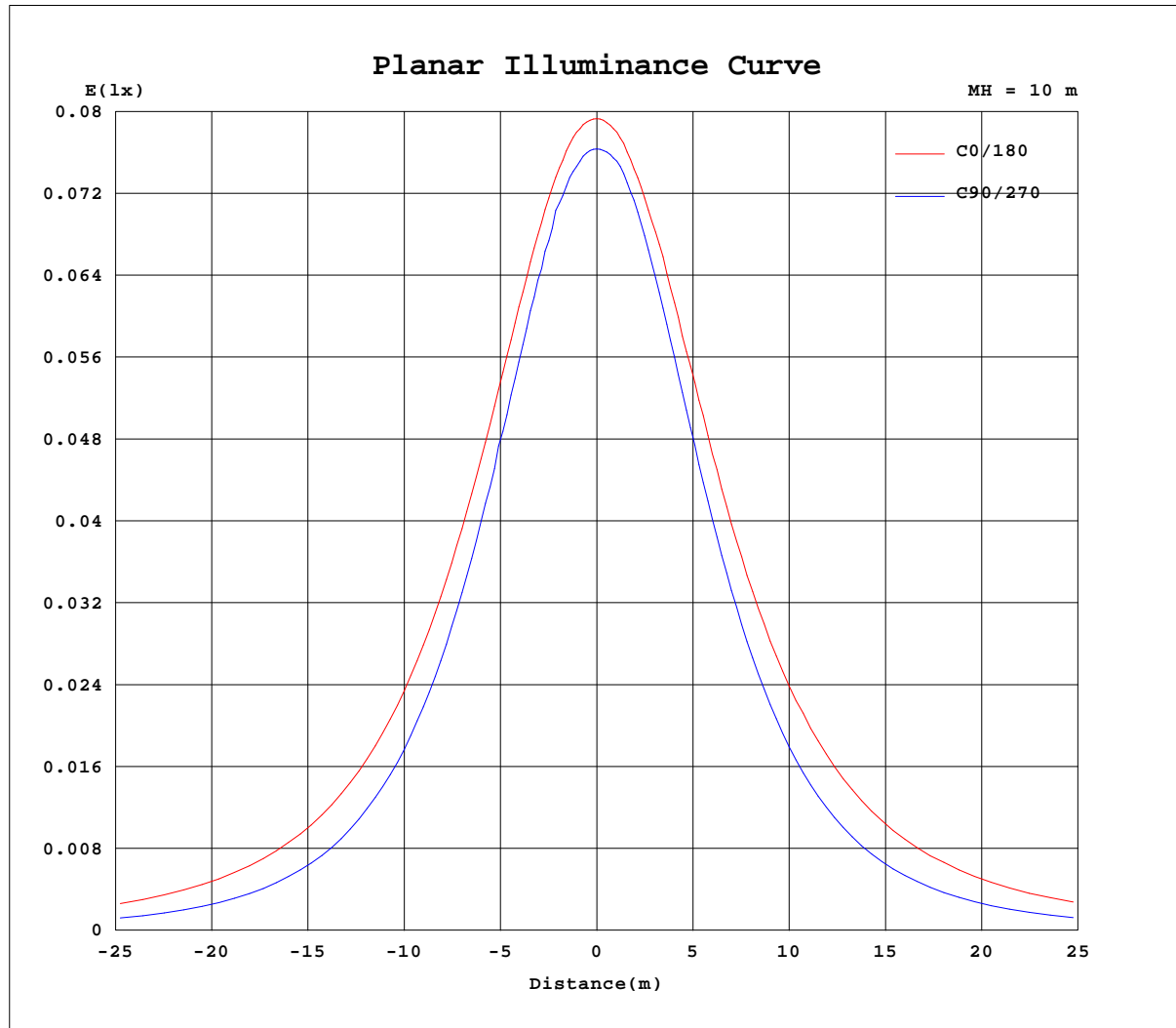
AvgL	cd/m2
L_0~180(65)av	1065
L_0~180(75)av	1494
L_0~180(85)av	3761
L_90~270(65)av	536
L_90~270(75)av	468
L_90~270(85)av	418
L_45(65)av	736
L_45(75)av	856
L_45(85)av	1681

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2019-07-01

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.750m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.3520A P:8.400W PF:1.000 Freq:0Hz Lamp Flux:35.3238x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0Y24CSS050CC0100	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	7.93	7.64	7.93	7.64															
5	7.92	7.60	7.93	7.64															
10	7.88	7.52	7.89	7.55															
15	7.82	7.36	7.81	7.38															
20	7.69	7.09	7.74	7.14															
25	7.55	6.77	7.60	6.83															
30	7.35	6.42	7.45	6.46															
35	7.15	6.01	7.23	6.05															
40	6.90	5.52	7.00	5.58															
45	6.63	5.01	6.76	5.08															
50	6.32	4.49	6.49	4.54															
55	5.99	3.89	6.19	3.96															
60	5.62	3.29	5.85	3.38															
65	5.28	2.68	5.52	2.77															
70	4.88	2.03	5.14	2.12															
75	4.49	1.40	4.79	1.51															
80	4.14	0.85	4.39	0.95															
85	3.79	0.38	4.08	0.50															
90	3.48	0.10	3.70	0.21															
95	3.19	0.01	3.41	0.02															
100	2.94	0.03	3.15	0.01															
105	2.70	0.03	2.90	0.01															
110	2.28	0.04	2.44	0.01															
115	1.96	0.05	2.16	0.01															
120	1.88	0.05	2.09	0.01															
125	1.67	0.06	1.85	0.01															
130	1.46	0.06	1.65	0.01															
135	1.28	0.08	1.44	0.02															
140	1.11	0.08	1.23	0.06															
145	0.95	0.10	1.04	0.08															
150	0.79	0.11	0.92	0.10															
155	0.59	0.11	0.69	0.11															
160	0.44	0.11	0.58	0.11															
165	0.18	0.11	0.27	0.11															
170	0.13	0.11	0.15	0.10															
175	0.12	0.12	0.12	0.10															
180	0.12	0.12	0.11	0.10															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks: